



Body Fluids and Circulation – [DPP-01]

1. Which of the following is an example of buffer system in blood?

(A) Haemoglobin and oxyhaemoglobin
(B) Oxygen and carbon dioxide
(C) Albumin and globulin
(D) Potassium bicarbonate and carbonic acid

2. Which of the following can be considered as the graveyard of RBC in human body?

(A) Spleen (B) Heart
(C) Liver (D) Lungs

3. Which of the following are erythropoietic organs?

I. liver
II. lymph node
III. spleen
IV. white bone marrow
V. red bone marrow

Choose the correct option:

(A) All except I
(B) All except II
(C) All except I
(D) All except IV & II

4. Choose the correct statements regarding the human blood:

I. The volume of the blood in an adult is 5 L.
II. It constitutes 30-35% of the total extracellular fluid.
III. Glucose concentration in the blood is 50mg/100 mL.
IV. Cholesterol concentration in the blood is 30 mg/100 mL.
V. Urea level in the blood is 10 mg/100 mL.

The option with correct statements is:

(A) I, II and III (B) III, IV and V
(C) IV and V (D) I and II

5. Human blood consists of:

(A) Fluid matrix (B) Plasma
(C) Formed elements (D) All of the above

6. Haemoglobin is:

(A) An oxygen carrier in human blood
(B) A protein used as food supplement
(C) An oxygen scavenger in root nodules
(D) A plant protein with high lysine content

7. Serum is:

(A) Blood without corpuscles
(B) Blood without fibrinogen
(C) Blood without fibrinogen and corpuscles
(D) Otherwise called as plasma

8. Haemoglobin contains:

(A) Fe^{2+} (B) Mg^{2+}
(C) Na^{2+} (D) Ca^{2+}

9. Haemoglobin molecule is made up of:

(A) One α -chain and one β -chain
(B) Two α -chains and two β -chains
(C) Two α -chains and one β -chain
(D) One α -chain and two β -chains

10. Major proteins in the human blood are:

I. fibrinogen II. Globulins
III. albumins

Choose the correct combination of option:

(A) I and II (B) II and III
(C) I and III (D) I, II and III



11. Which of the following organs can be called a sort of 'blood bank'?
- (A) Heart (B) Spleen
(C) Liver (D) Lungs
12. Blood is a:
- (A) Mobile connective tissue
(B) Liquid connective tissue
(C) Both (A) and (B)
(D) Semisolid connective tissue
13. Components essential for RBC formation is:
- (A) Iron (B) Vitamin-B₁₂
(C) Folate (D) All of these
14. Plasma is a straw coloured viscous fluid constituting nearly ...A... % of the blood, ...B... % of the plasma is water; and the protein constitutes ...C... % of it. Choose the correct option for the blanks A, B and C.
- (A) A-55, B-90-92, C-6-8
(B) A-45, B-70-80, C-6-8
(C) A-35, B-90-92, C-6-8
(D) A-45, B-90-92, C-6
15. In humans, RBCs are formed in:
- (A) red bone marrow
(B) heart
(C) lungs
(D) yellow bone marrow
16. RBCs have an average lifespan of:
- (A) 90 days (B) 100 days
(C) 120 days (D) 140 days
17. Identify the correct statement from below.
- (A) RBCs are the least abundant blood cells
(B) They have a red colored, copper containing pigment
(C) RBCs are devoid of nucleus in most mammals
(D) They are biconvex in shape
18. A healthy individual has ...A... grams of haemoglobin in every ...B... mL of blood. These molecules plays a significant role in the transport of ...C... gases. Choose the correct option for A, B and C.
- (A) A-12-16, B-100, C-respiratory
(B) A-6-8, B-100, C-respiratory
(C) A-7-10, B-1000, C-respiratory
(D) A-16-20, B-1000, C-respiratory
19. Formed elements present in the human blood are:
- (I) erythrocytes
(II) leucocytes
(III) platelets
(IV) plasma (V) lymph
- Choose the correct option.
- (A) I, II and III
(B) II, III and IV
(C) III, IV and V
(D) I, II, III, IV and V
20. Properties of human RBCs are:
- (I) devoid of nucleus
(II) formed in bone marrow
(III) possess healing properties
(IV) biconcave in shape
(V) help in blood clotting
- Choose the option with correct properties.
- (A) I, II and III (B) I, II and IV
(C) III, IV and V (D) III, II and IV
21. Which of the below statements are correct and incorrect?
- (I) plasma constitutes 45% of the human blood.
(II) Albumin is a plasma protein that helps in osmotic balance.
(III) Factors of blood clotting are present in the blood.



(IV) Plasma without clotting factors is serum.

(V) Mineral are not found in the blood.

Choose the appropriate option.

Correct

Incorrect

- | | |
|---------------------|---------------------|
| (A) Only V | I, II, III, and, IV |
| (B) IV, III, and II | I and V |
| (C) I, III, and IV | II and IV |
| (D) IV, III, and V | I and II |

22. Which of the following statements is false?

- (A) Erythrocytes/RBCs are the least abundant of all the cells in blood
- (B) The number of RBCs in adult man per mm^3 of blood is 5 million to 5.5 million
- (C) RBC are formed in the red bone marrow in the adults
- (D) RBCs are enucleate in most of the mammals

23. Mammalian RBCs are ____ in shape:

- (A) Oval
- (B) Biconvex
- (C) Biconcave
- (D) Sickle like

24. Erythropoesis may be stimulated by the deficiency of:

- (A) iron
- (B) oxygen
- (C) Protein
- (D) None of the above

25. The iron free compound of haemoglobin is:

- (A) Globin
- (B) Haematin
- (C) Myoglobin
- (D) Haemotoxin

26. Haemoglobin contains:

- (A) 70% globin + 30% haematin
- (B) 80% globin + 20% haematin
- (C) 95% globin + 05% haematin
- (D) 90% globin + 10% haematin

27. Serum is:

- (A) Plasma without clotting factors
- (B) Blood without blood cells
- (C) Blood without clotting factors
- (D) Blood without RBC

28. Mark the odd one w.r.t. characteristic features of human RBC:

- (A) Biconcave
- (B) Circular
- (C) Oval
- (D) Non nucleated

29. Which proteins are involved in defense mechanisms of the body?

- (A) globulins
- (B) albumin
- (C) fibrinogen
- (D) none of these

30. Which of the following statements is **incorrect**?

- (A) The RBCs of camel are oval and enucleated
- (B) Blood clotting factors are present in plasma
- (C) Human RBCs lack nuclei but have mitochondria
- (D) In adults erythropoesis occurs in the bone marrow



ANSWERS

1. (A)
2. (A)
3. (D)
4. (D)
5. (D)
6. (A)
7. (C)
8. (A)
9. (B)
10. (D)
11. (B)
12. (C)
13. (D)
14. (A)
15. (A)
16. (C)
17. (C)
18. (A)
19. (A)
20. (B)
21. (B)
22. (A)
23. (C)
24. (B)
25. (A)
26. (C)
27. (A)
28. (C)
29. (A)
30. (C)



***Note* - If you have any query/issue**

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